

2.16 Invasive Species

2.16.1 Regulatory Setting

On February 3, 1999, President William J. Clinton signed Executive Order (EO) 13112 requiring federal agencies to combat the introduction or spread of invasive species in the United States. The order defines invasive species as “any species, including its seeds, eggs, spores, or other biological material capable of propagating that species, that is not native to that ecosystem whose introduction does or is likely to cause economic or environmental harm or harm to human health.” Federal Highway Administration (FHWA) guidance issued August 10, 1999, directs the use of the State’s invasive species list, maintained by the California Invasive Species Council to define the invasive species that must be considered as part of the National Environmental Policy Act (NEPA) analysis for a proposed project.

2.16.2 Affected Environment

The information in this section is based on the *Natural Environment Study* (NES) (February 2018) and the *Supplemental NES* (September 2018) prepared for the proposed project.

The California Invasive Plant Council (Cal-IPC) 2006 Invasive Plant Inventory highlights non-native plants that are serious problems in wildlands (i.e., natural areas that support native ecosystems, including national, State, and local parks, ecological reserves, wildlife areas, national forests, and Bureau of Land Management lands). The inventory categorizes plants as High, Moderate, or Limited based on each species’ negative ecological impact in California. Plants categorized as High have severe ecological impacts. Plants categorized as Moderate have substantial and apparent, but not severe, ecological impacts. Plants categorized as Limited are invasive, but their ecological impacts are minor on a statewide level.

In total, 27 non-native plant species occurring on the Cal-IPC Invasive Plant Inventory (High, Moderate, and Limited) were observed in the Biological Study Area (BSA) during project survey efforts. Of the 27 invasive plant species observed in the BSA, five have an overall high rating (i.e., red brome [*Bromus madritensis*], sweet fennel [*Foeniculum vulgare*], salt cedar [*Tamarix ramosissima*], giant reed [*Arundo donax*] and Spanish broom [*Spartium junceum*]), 13 have a moderate rating (i.e., ripgut brome [*Bromus diandrus*], black mustard [*Brassica nigra*], short podded mustard [*Hirshfeldia incana*], totalote [*Centaurea melitensis*], tree tobacco [*Nicotiana glauca*], crimson fountain grass [*Pennisetum setaceum*], Australian

saltbush [*Atriplex semibaccata*], sticky snakeroot [*Ageratina adenophora*], Italian thistle [*Carduus pycnocephalus*], artichoke thistle [*Cynara cardunculus*], purple false brome [*Brachypodium distachyon*], Bermuda grass [*Cynodon dactylon*], and London rocket [*Sisymbrium irio*]), and nine have a limited rating (i.e., castor bean [*Ricinus communis*], smilo grass [*Stipa miliacea* var. *miliacea*], Peruvian peppertree [*Schinus molle*], smooth cat's ear [*Hypochaeris glabra*], bur clover [*Medicago polymorpha*], English plantain [*Plantago lanceolata*], curly dock [*Rumex crispus*], soft chess [*Bromus hordeaceus*], and Russian thistle [*Salsola tragus*]). In addition, comments received from the United States Department of Agriculture (USDA) U.S. Forest Service (USFS) indicate that yellow star thistle (*Centaurea solstitialis*), which has a Cal-IPC High rating, and stinkwort (*Dittrichia graveolens*), which has a Cal-IPC Moderate rating, have been documented as occurring within the BSA. It should also be noted that the USFS actively monitors and controls invasive plant species as part of the Cleveland National Forest Land Management Plan.

Two non-native animal species were identified in the BSA including red swamp crayfish (*Procambarus clarkia*) and American bullfrog (*Lithobates catesbeianus*). There have been previously documented eradication efforts for both species within the BSA.

2.16.3 Environmental Consequences

2.16.3.1 Temporary Impacts

Build Alternative (Preferred Alternative)

Implementation of the Build Alternative has the potential to spread invasive species within the project soil disturbance limit through the entering and exiting of contaminated construction equipment and through the improper removal and disposal of invasive species during the construction period. With implementation of Measure BIO-3 provided in Section 2.11, Natural Communities, the project will avoid the spread of invasive species within the project disturbance limit during the construction period.

No Build Alternative

The No Build Alternative would not include construction of any of the proposed project improvements. As a result, as described under permanent impacts, the No Build Alternative would not result in new impacts related to invasive species. Locations within the State Route 74 (SR-74) right-of-way where invasive species currently occur would not be modified under the No Build Alternative.

2.16.3.2 Permanent Impacts

Build Alternative (Preferred Alternative)

To accommodate the shoulder widening, the project will permanently remove existing invasive plant species located adjacent to the freeway and may reduce existing invasive species in the area. However, potential impacts from invasive species associated with construction are considered permanent because the introduction of invasive species into previously undisturbed areas would result in permanent impacts to any affected native habitats. Implementation of the Build Alternative has the potential to spread invasive species to adjacent native habitats in the BSA through the entering and exiting of contaminated construction equipment, the inclusion of invasive species in seed mixtures and mulch, and through the improper removal and disposal of invasive species causing seed to be spread along the highway. With implementation of Measure BIO-3 provided in Section 2.11, project-related permanent impacts related to invasive species would not be adverse.

No Build Alternative

The No Build Alternative would not include construction or operation of any of the proposed project improvements. Therefore, the No Build Alternative would not result in impacts related to invasive species.

2.16.4 Avoidance, Minimization, and/or Mitigation Measures

Measure BIO-3, provided in Section 2.11, would be implemented to reduce impacts of the Build Alternative related to invasive species.

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